





PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference P 1853 PCT/sg	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)		
International application No.	International filing date (da)	/month/year)	Priority date (day/month/year)	
PCT/DE2003/003227	26 September 2003 (2		1	
International Patent Classification (IPC) or national classification and IPC C03C 10/04 Z6 September 2003 (26.09.2003) 27 September 2002 (27.09.2002) C7 September 2002 (27.09.2002)				
Applicant		_		
	SCHOTT AC	3		
1. This international preliminary exami				
and is transmitted to the applicant ac	nation report has been prepare cording to Article 36.	d by this Intern	ational Preliminary Examining Authority	
2. This REPORT consists of a total of	5 sheets, includ	ing this cover si	heet.	
This report is also accompanie amended and are the basis for 70.16 and Section 607 of the A	WHO ICOURT MIRCHART SPEETS CONTO	INING POSTITION	on, claims and/or drawings which have been tions made before this Authority (see Rule	
These annexes consist of a total		,		
	ances.			
3. This report contains indications relati	ng to the following items:			
I Basis of the report				
II Priority				
III Non-establishment of	opinion with regard to novelt	y, inventive ste	p and industrial applicability	
IV Lack of unity of inver	ntion			
V Reasoned statement u citations and explanat	nder Article 35(2) with regard ions supporting such statemen	to novelty, inv	entive step or industrial applicability;	
VI Certain documents cit	red			
VII Certain defects in the	international application			
VIII Certain observations on the international application				
Date of submission of the demand			sh:	
		Date of completion of this report		
27 February 2004 (27.02.2	2004)	17 Au	igust 2004 (17.08.2004)	
Name and mailing address of the IPEA/EP	Author	ized officer		
Facsimile No.		Telephone No.		





International application No.

PCT/DE2003/003227

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

I. I	I. Basis of the report				
1.	With	regard to	the elements of the international application:*		
		the inte	rnational application as originally filed		
	$\overline{\boxtimes}$	the des	cription:		
	لاسكا	pages	1-19	, as originally filed	
		pages		, filed with the demand	
		pages	filed with the letter of	,	
	K-2				
	\bowtie	the clai	ms:		
		pages		, as originally filed	
		pages	, as amended (together with any sta	tement under Article 19	
		pages		, filed with the demand	
		pages	, filed with the letter of		
	\boxtimes	the dra	wings:		
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		pages		, filed with the demand	
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		равсо	, filed with the letter of		
	∐ t	he seque	ence listing part of the description:		
		pages		, as originally filed	
		pages		, filed with the demand	
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2.	the in These	the lan the lan the lan or 55.3	guage of a translation furnished for the purposes of international search (under Rule 23.1(b)). guage of publication of the international application (under Rule 48.3(b)). guage of the translation furnished for the purposes of international preliminary examination	which is:	
		_	ned in the international application in written form.		
	Ħ		ogether with the international application in computer readable form.		
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	H		ned subsequently to this Authority in written form.		
	H		ned subsequently to this Authority in computer readable form.		
			tatement that the subsequently furnished written sequence listing does not go beyond ational application as filed has been furnished.	the disclosure in the	
	Ш		atement that the information recorded in computer readable form is identical to the writt purnished.	en sequence listing has	
4.		The ar	nendments have resulted in the cancellation of:		
			the description, pages		
			the claims, Nos.		
		Ħ	the drawings, sheets/fig		
5.			port has been established as if (some of) the amendments had not been made, since they hav the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**	re been considered to go	
* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).					
** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.					

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

4	
national	application No.
PCT/DE	03/03227

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

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1.	Statement			·
	Novelty (N)	Claims	1-12	YES
		Claims		NO
	Inventive step (IS)	Claims	1-12 -	YES
		Claims		NO
	Industrial applicability (IA)	Claims	1-12	YES
		Claims		NO NO

2. Citations and explanations

1. Documents

This report refers to the following documents:

D1: US-A-5 726 108 (KURIYAMA IKUJO ET AL.) 10 March

1998

D2: EP-A-0 755 901 (YAMAMURA GLASS CO LTD) 29

January 1997.

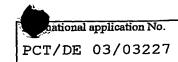
2. Subject matter of the application

Claims 1-7 of the application define a crystallizable glass of the magnesium-containing aluminosilicate type. Claim 8 defines a glass ceramic that can be produced by heating this glass, and claims 9-12 define uses of this glass.

3. Support by the description

The feature in claim 1 that the glass can contain 0.1 to 30% by weight As_2O_3 in place of the same proportion of Y_2O_3 is not mentioned in the **description**. Claim 1 therefore (with regard to As_2O_3) is not supported by the description as prescribed under PCT Article 6.

Moreover, the examples support only the Y_2O_3 content, and not the possibility that Y_2O_3 can be replaced by one of the oxides Ln_2O_3 , As_2O_3 or Nb_2O_5 .



4. Novelty and inventive step

D1 (see the claims and the examples) and D2 (see the claims and the examples) both describe a glass ceramic with a composition that contains SiO_2 , Al_2O_3 , MgO, B_2O_3 and P_2O_5 in ranges that overlap the claimed ranges. The composition could also contain Nb_2O_5 or La_2O_3 . None of the examples in D1 or D2 falls within the ranges claimed in the present application. The modulus of elasticity is not described in either D1 or D2.

Novelty and inventive step are recognized because the subject matter of claims 1-12 constitutes a novel and non-obvious selection from among known glass and glass ceramic compositions and because the problem of preparing crystallizable glasses that have a low SiO₂ content and can be converted into glass ceramics with a modulus of elasticity > 110 GPa is solved in a non-obvious way.